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*Admitted only in Maryland
*Admitted only in Virginia
*Practice Limited to
Federal Agencies

August 10, 2005

WRITER'S DIRECT NUMBER:

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Art Unit 2631

Attn: Mail Stop Amendment

Re: U.S. Utility Patent Application
Appl. No. 09/986,764; Filed: November 9, 2001
For: **Method and Apparatus for Reducing DC Offsets in a Communication System**

Inventors: RAWLINS *et al.*

Our Ref: 1744.1330000

Sir:

Transmitted herewith for appropriate action are the following documents:

1. PTO Fee Transmittal Form (PTO/SB/17);
2. Sixth Supplemental Information Disclosure Statement;
3. A listing of the cited documents on Form PTO-1449 (3 pages);
4. A copy of the cited document (AQ59);
5. One (1) return postcard; and
6. Credit Card Payment Form (PTO-2038) in the amount of \$180.00 to cover the Information Disclosure Statement Fee.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
August 10, 2005
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read 'J. S. Weaver', followed by a horizontal line.

Jeffrey S. Weaver
Attorney for Applicants
Registration No. 45,608

MQL/JSW:apg
Enclosures

428815_1.DOC



Equivalent to Form
PTO/SB/17 (12-04)

Approved for use through 07/31/2006.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180.00

Complete if Known

Application Number	09/986,764
Filing Date	November 9, 2001
First Named Inventor	Gregory S. RAWLINS
Examiner Name	Vo, Don Nguyen
Art Unit	2631
Attorney Docket No.	1744.1330000

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 19-0036 Deposit Account Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
- 20 or HP	=	x	=			
HP = highest number of total claims paid for, if greater than 20						
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)			
- 3 or HP	=	x	=			
HP = highest number of independent claims paid for, if greater than 3						

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other: Submission of Information Disclosure Statement

Fees Paid (\$)

180.00

SUBMITTED BY

Signature		Registration No. (Attorney/Agent)	45,608	Telephone	(202) 371-2600
Name (Print/Type)	Jeffrey S. Weaver	Date	August 10, 2005		

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

RAWLINS *et al.*

Appl. No.: 09/986,764

Filed: November 9, 2001

Confirmation No.: 5623

Art Unit: 2631

Examiner: Vo, Don Nguyen

Atty. Docket: 1744.1330000

For: **Method and Apparatus for Reducing
DC Offsets in a Communication System**

Sixth Supplemental Information Disclosure Statement

Mail Stop Amendment

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Sixth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Fifth Supplemental Information Disclosure Statement filed on March 7, 2005 in connection with the above-captioned application.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teaching purportedly offered.

Applicants provide the following comments regarding the documents:

08/11/2005 SZENDIEI 00060107 09986764
180.00 OP
01 FC:1806

Document AQ59 was cited in a Notice of Allowance in related U.S. Patent Application No. 10/290,323, filed November 8, 2002, entitled "Method and Apparatus for DC Offset Removal in a Radio Frequency Communication Channel," directed to related subject matter.

Documents AC60-AI60 and AA61 were cited in an Office Action in related U.S. Patent Application No. 09/855,851, filed May 16, 2001, entitled "Apparatus, System, and Method for Down-Converting and Up-Converting Electromagnetic Signals," directed to related subject matter. Also cited in said Office Action were U.S. Patent Nos. 5,465,415, 6,049,706, 6,061,551, 6,580,902, 6,687,493, and 6,813,485, all of which have already been cited in the present application.

Documents AB61 and AC61 are co-owned patents which are directed to related subject matter.

Document AD61 was cited in an Office Action in related U.S. Patent Application No. 09/550,642, filed April 14, 2000, entitled "Method And System For Down-Converting An Electromagnetic Signal, And Transforms For Same," directed to related subject matter. Also cited in said Office Action were U.S. Pat. Nos. 5,678,226 and 6,094,084, which have already been cited in the present application.

Document AE61 was cited in an Office Action in related U.S. Patent Application No. 09/476,092, filed January 3, 2000, entitled "Analog Zero IF FM Decoder And Embodiments Thereof, Such As The Family Radio Service," directed to related subject matter. Also cited in said Office Action were U.S. Pat. Nos. 5,600,680 and 5,606,731, which have already been cited in the present application.

Documents AF61-AI61 were cited in an Office Action in related U.S. Patent Application No. 09/567,977, filed May 10, 2000, entitled "Optical Down-Converter Using Universal Frequency Translation Technology," directed to related subject matter. Also cited in said Office Action was Stewart, R.W. and Pfann, E., "Oversampling and sigma-delta strategies for data conversion," *Electronics & Communication Engineering Journal*, IEEE, pp. 37-47 (February 1998), which has already been cited in the present application.

Documents AA62 and AB62 were cited in a Notice of Allowance in related U.S. Patent Application No. 09/632,855, filed August 4, 2000, entitled "Wireless Local Area Network (WLAN) Using Universal Frequency Translation Technology Including Multi-Phase Embodiments," directed to related subject matter.

Document AC62 was cited in an Office Action in related U.S. Patent Application No. 09/796,824, filed March 2, 2001, entitled "Phased Array Antenna Applications of Universal Frequency Translation," directed to related subject matter. Also cited in said Office Action was U.S. Patent No. 5,742,189, which has already been cited in the present application.

Documents AD62-AF62 were cited in an Office Action in related U.S. Patent Application No. 10/318,207, filed December 13, 2002, entitled "Method And Apparatus For Reducing Re-Radiation Using Techniques Of Universal Frequency Translation Technology," directed to related subject matter.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☐ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.
- ☒ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a

communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

- ☒ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$_____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:

- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more

than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

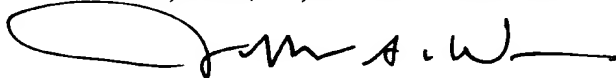
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- ☐ 6. A concise explanation of the relevance of the non-English language document(s) appears below in accordance with 37 C.F.R. § 1.98(a)(3).
- ☒ 7. A copy of document AQ59 is enclosed. However, in accordance with 37 C.F.R. § 1.98(a)(2), copies of the U.S. patents and patent application publications cited on the attached Form PTO-1449 are not enclosed.
- ☐ 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).
- ☐ 9. It is expected that the examiner will review the prosecution and cited art in the parent application no(s). _____ in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Jeffrey S. Weaver
Attorney for Applicants
Registration No. 45,608

Date: 8-10-05

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427830_1.DOC

**SIXTH SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT**ATTY. DOCKET NO.
1744.1330000APPLICATION NO.
09/986,764FIRST NAMED INVENTOR
Gregory S. RAWLINSFILING DATE
November 9, 2001ART UNIT
2631**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC60	4,789,837	12/1988	Ridgers			
	AD60	5,634,207	05/1997	Yamaji <i>et al.</i>			
	AE60	5,642,071	06/1997	Sevenhans <i>et al.</i>			
	AF60	6,211,718 B1	04/2001	Souetinov			
	AG60	6,212,369 B1	04/2001	Avasarala			
	AH60	6,308,058 B1	10/2001	Souetinov <i>et al.</i>			
	AI60	6,633,194 B2	10/2003	Arnborg <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER INITIAL	DOC. REF.	CITATION
	AN	
	AO	
	AP	
	AQ59	Hellwarth, G.A. and Jones, G.D, "Automatic Conditioning of Speech Signals," <i>IEEE Transactions on Audio and Electroacoustics</i> , Vol. AU-16, No. 2, pp. 169-179 (June 1968).
	AR	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449

ATTY. DOCKET NO.
1744.1330000APPLICATION NO.
09/986,764SIXTH SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENTFIRST NAMED INVENTOR
Gregory S. RAWLINSFILING DATE
November 9, 2001ART UNIT
2631**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA61	2001/0036818 A1	11/2001	Dobrovolny			
	AB61	6,873,836 B1	03/2005	Sorrells <i>et al.</i>			
	AC61	6,879,817 B1	04/2005	Sorrells <i>et al.</i>			
	AD61	6,057,714	05/2000	Andrys <i>et al.</i>			
	AE61	2003/0081781 A1	05/2003	Jensen <i>et al.</i>			
	AF61	5,994,689	11/1999	Charrier			
	AG61	6,512,544 B1	01/2003	Merrill <i>et al.</i>			
	AH61	6,628,328 B1	09/2003	Yokouchi <i>et al.</i>			
	AI61	6,801,253 B1	10/2004	Yonemoto <i>et al.</i>			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

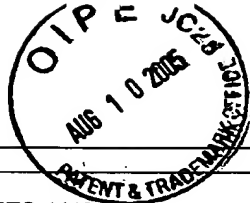
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER INITIAL	DOC. REF.	CITATION
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ATTY. DOCKET NO.
1744.1330000APPLICATION NO.
09/986,764**SIXTH SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT**FIRST NAMED INVENTOR
Gregory S. RAWLINSFILING DATE
November 9, 2001ART UNIT
2631**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA62	3,737,778	06/1973	Van Gerwen <i>et al.</i>			
	AB62	4,286,283	08/1981	Clemens			
	AC62	4,241,451	12/1980	Maixner <i>et al.</i>			
	AD62	5,014,130	05/1991	Heister <i>et al.</i>			
	AE62	5,390,215	02/1995	Anita <i>et al.</i>			
	AF62	5,805,460	09/1998	Greene <i>et al.</i>			
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOC. REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AJ						Yes No
	AK						Yes No
	AL						Yes No
	AM						Yes No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

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